and a stator or casing which is fixed. The foregoing amendment is made to correct this obvious error.

As for the claims, these amendments are presented to more clearly distinguish the claimed invention from the combination of Brandon and Bagepalli. As has been argued by the undersigned, the Bagepalli structure has radial overlaps/underlaps due to the circumferential offset between the inner portion of the seal (Applicants' "main body 202" (pg. 7, ln. 25-26) as now recited in the amended claims) and the T-shaped extension. While the ends of the inner portion and the T-shaped extension may be parallel with radii of the shaft, because the inner portion and the extension are not coextensive between the opposite ends of the segment, the radial overlaps/underlaps exist. Because Applicants contend that such overlaps/underlaps prevent such a structure from being retractable, the claims have been amended to particularly eliminate structures having such overlaps. The structure now claim is clearly shown in the instant figures (*e.g.*, Figs. 2A, 2B, and 3). Further, it is believed that such structure clearly defines over the combination of references, and so eliminates the need for an appeal.

CERTIFICATE OF MAILING OR TRANSMISSION – 37 CFR 1.8

I hereby certify that I have a reasonable basis that this paper, along with any referred to above, (i) are being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to Commissioner of Patents and Trademarks, Washington, D.C 20231, or (ii) are being transmitted to the U.S. Patent & Trademark Office in accordance with 37 CFR § 1.6(d).

DATE: 26 March 2003

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26 March 2003

APPENDIX OF MARK-UPS OF AMENDMENTS

IN THE SPECIFICATION

Page 3, paragraph running from lines 8 to 24:

A second location where steam seals are required is between the [rotor] casing and the turbine shaft. Creating seals over such regions has been addressed generally over the years by installing a segmented packing between the [rotor] casing and the turbine shaft at each turbine stage. The packing typically consists of a first ring structure with multiple rows of fins (i.e., seal teeth) on one of the parts and a second structure with multiple rows of surface projections that correspond to the fins. The first ring structure typically is mounted from the associated diaphragm and the second ring structure typically is mounted to the turbine shaft. Together, the corresponding and registered rows of fins and projection structures create a labyrinth-type seal which presents a high impedance flow path to pressurized steam. However, during start up operation, low frequency modes of operation about the turbine axis tends to cause the tip portions of each row of fins to move radially outwardly and inwardly; in addition, differential thermal expansion caused as the hot working fluid is admitted to the stages and each heats up to operating temperature can exacerbate damage to the packing. To avoid rubbing and damage to such packing ring structures, it is necessary to design the fins and surface projections with sufficient clearance to avoid tip rubbing during start-up operation. This, however, necessarily degrades the quality of the labyrinth seal.

IN THE CLAIMS

1. (Thrice amended.) A retractable packing segment for an apparatus that extracts work from the expansion of a gaseous working fluid, said apparatus

comprising:

a rotating shaft disposed in a casing,

a plurality of packing segments disposed in a ring and centered on an axis defined by said shaft to provide a seal therearound,

said retractable packing segment comprising:

a main body having an inner face for sealing against said shaft and an outer face supporting a T-shaped extension, said [inner and outer faces] main body and said extension coextensively spanning opposing side ends, said side ends cut parallel with radii of said axis; and

at least one brush seal disposed on the inner face of said segment, said brush seal having opposing ends, at least one of said ends cut non-parallel with radii of said axis.

6. (Thrice Amended.) A retractable brush seal for an apparatus that extracts work from the expansion of a gaseous working fluid, said apparatus comprising:

a rotating shaft disposed in a casing,

said brush seal in the geometry of a ring formed from a plurality of adjacent abutting packing segments and centered on an axis defined by said shaft to provide a brush seal therearound,

each said segment comprising:

a main body having an [innerface] inner face for sealing against said shaft and an outer face supporting a T-shaped extension, said [inner and outer faces] main body and said extension coextensively spanning opposing side ends, said side ends cut parallel with radii of said axis; and;

at least one brush seal disposed on the inner face of said segment, said brush seal having opposing side ends cut non-parallel with radii of said axis, one of said side ends cut angled to form a tongue extending past the segment side end and the other of said brush seal ends cut at the same angle relative to said segment to provide a groove for accepting a tongue formed by a brush seal on an adjacent packing segment.